

PATENT CLAIMS

1. An aircraft door arrangement, especially for an airplane, comprising:
 - a door (2);
 - a door frame (6);
 - a support arm (8) with a pivoting axis (AD) on the door side, on which the door (2) is mounted so as to swivel, and with a pivoting axis (AF) on the frame side, on which the support arm (8) is mounted so as to swivel on the door frame (6), whereby at least the pivoting axis (AD) on the door side is defined by two articulated joints (G1, G2) positioned at a distance from each other in the vertical direction (Y) of the support arm (8), of which articulated joints at least one (G1; G2) articulated joint has two bearings (L1a, L1b, L2a, L2b) positioned at a distance from each other in the vertical direction (Y);
 - a pivoting drive (10) that is arranged in the area of the support arm (8) on the door side and that serves to swivel the door (2); and
 - a driven element (12; 14, 16) that is coupled to the pivoting drive (10) and to the door (2) and that transmits an actuating movement of the pivoting drive (10) to the door (2);

characterized in that,

- one (L1b) of the two bearings (L1a, L1b) of at least one (G1) of the articulated joints (G1, G2) on the frame side is configured as a pivoting drive mounting (34) (L1B) to which the pivoting drive (10) is attached.

2. The aircraft door arrangement according to Claim 1,

characterized in that

relative to the vertical direction (Y) of the support arm (8), the pivoting drive mounting (34) forms the lower bearing (L1b, L1B) of the upper articulated joint (G1) of the two articulated joints (G1, G2).

3. The aircraft door arrangement according to Claim 1 or 2, characterized in that, relative to the vertical direction (Y) of the support arm (8), the pivoting drive mounting (34) forms the upper bearing (L2a) of the lower articulated joint (G2) of the two articulated joints (G1, G2).

4. The aircraft door arrangement according to one or more of the preceding claims, characterized in that the pivoting drive mounting (34) is a separate part that is detachably affixed to the support arm (8) by means of attachment means (38).

5. The aircraft door arrangement according to one or more of the preceding claims, characterized in that the pivoting drive mounting (38) is configured integrally with the support arm (8).

6. The aircraft door arrangement according to one or more of the preceding claims, characterized in that the pivoting drive mounting (34) has a bearing section (46) that forms a bearing (L1b, L1B).

7. The aircraft door arrangement according to one or more of the preceding claims, characterized in that the pivoting drive mounting (34) has a pivoting drive attachment section (40) extending essentially vertically with respect to the pivoting axis (AD) on the door side, whereby the section (40) can be connected to a front section (44) of the pivoting drive (10).

8. The aircraft door arrangement according to one or more of the preceding claims, characterized in that
the pivoting drive (10) has a support arm attachment section (36).
9. The aircraft door arrangement according to one or more of the preceding claims, characterized in that
the pivoting drive mounting (34) has a driven axis (34) that is flush with the pivoting axis (AD) of the support arm (8) on the door side.
10. The aircraft door arrangement according to one or more of the preceding claims, characterized in that
the pivoting drive mounting (34) is arranged in the pivoting axis (AD) on the door side and between the two articulated joints (G1, G2).
11. The aircraft door arrangement according to one or more of the preceding claims, characterized in that
 - the pivoting drive (10) has a hollow driven shaft (54) into which a bearing pin (56) engages non-rotatably and extends all the way through the first bearing (L1a) and into the pivoting drive mounting (34),
 - and the driven element (12; 14, 16) is connected non-rotatably to the hinge pin (46).
12. The aircraft door arrangement according to one or more of the preceding claims, characterized in that
the bearing element (60) of the pivoting drive (10) attached to the pivoting drive mounting forms a hinge site (L1B).

13. The aircraft door arrangement according to one or more of the preceding claims, characterized in that
a driven shaft of the pivoting drive (10) forms a hinge pin of the one articulated joint (G1; G2) on which the pivoting drive mounting (34) is provided, and the driven element (12; 14, 16) is rotatably connected to the driven shaft that forms the hinge pin.

14. The aircraft door arrangement according to one or more of the preceding claims, characterized in that
the driven element (12; 14, 16) engages the support arm (8) between a bearing (L1a) and the pivoting drive mounting (34).

15. The aircraft door arrangement according to one or more of the preceding claims, characterized in that
the door (2) is a passenger door.